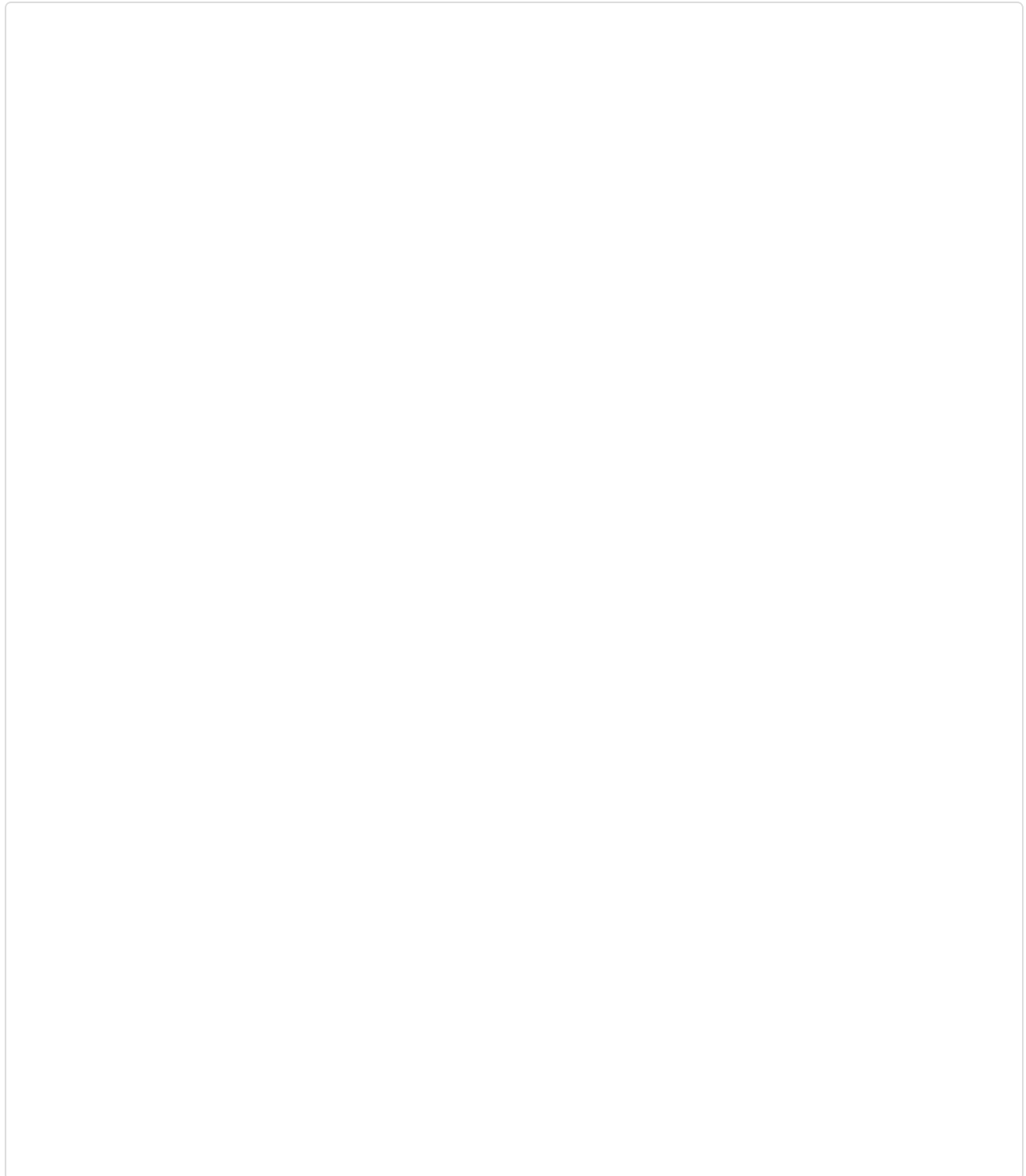


EXHIBIT D

U.S. Food and Drug Administration
Protecting and Promoting *Your* Health

Pet Turtles: Cute But Commonly Contaminated with *Salmonella*





Turtles commonly carry the *Salmonella* bacteria on their outer skin and shell surfaces. Geckos can also infect people with *Salmonella*.

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The little glassy-eyed creatures may look cute and harmless, but small turtles can make people very ill. Turtles commonly carry *Salmonella* bacteria on their outer skin and shell surfaces.

People can get infected with *Salmonella* by coming in contact with:

- Turtles or other reptiles (lizards, snakes);
- Amphibians (frogs, salamanders, newts); and
- The habitats of reptiles or amphibians, such as cages, tanks and aquariums.

Salmonella can cause a serious or even life-threatening infection in people, even though the bacteria do not make reptiles or amphibians sick. One example: the 2007 death of a 4-week-old baby in Florida linked to *Salmonella* from a small turtle. The DNA of the *Salmonella* from the turtle matched that from the infant.

People infected with *Salmonella* may have diarrhea, fever, stomach pain, nausea, vomiting, and headache. Symptoms usually appear six to 72 hours after contact with the bacteria and last about two to seven days. Most people recover without treatment; but some can become so sick that they need to be treated in a hospital.

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Who Is at Risk of *Salmonella* Infection

Anyone can get *Salmonella* infection. But the risk is highest in infants; young children; elderly people; and people with lowered natural resistance to infection because of pregnancy, cancer, HIV/AIDS, diabetes, and other diseases.

“All reptiles and amphibians have the potential to be carriers of *Salmonella*,” says Vic Boddie II, Ph.D., a consumer safety officer in the Food and Drug Administration’s Center for Veterinary Medicine. “And if children come in contact with small turtles, they run the risk of becoming very ill.”

“Even if a small turtle doesn’t look sick, it may still carry *Salmonella* that could make young children sick. And unfortunately, children will unknowingly infect themselves,” Boddie says. “Kids have the tendency to put the small turtles in their mouths or play in the turtle habitat and then put their fingers in their mouths. Also, reptile habitats are sometimes cleaned in the kitchen sink, which could cross-contaminate food and eating utensils, thus posing a serious risk to both kids and the elderly.”

Surfaces such as countertops, tabletops, bare floors, and carpeting can also become contaminated with the bacteria if the turtle is allowed to roam on them. The bacteria may survive for a long time on those surfaces. Proper handling and hygiene practices are extremely important in preventing the spread of the bacteria and keeping you and your family healthy.

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Infection From Turtles and Geckos

From Jan. 22, 2015, to Sept. 8, 2015, the Centers for Disease Control and Prevention (CDC) received reports of 51 *Salmonella*-related illnesses in 16 states—most of which were in children age 5 or younger. Although there were no deaths associated with this outbreak, 15 people were hospitalized.

The investigation showed that shortly before most of the people became ill, they were exposed to a turtle by touching, feeding, cleaning the habitat, or changing the water in the tank. More specifically, 80% of people who became sick reported buying and handling small turtles from a street vendor or receiving the turtle as a gift.

Geckos also can be the source of a *Salmonella* outbreak. Between Jan. 1, 2014, and June 16, 2015, CDC received reports of 22 people in 17 states who were infected with *Salmonella* associated with geckos. Geckos commonly live in aquariums or fish tanks, and could be carrying *Salmonella* but appear healthy and show no signs of illness.

As with turtles, these outbreaks generally affected children, and some infected individuals were hospitalized. It is extremely important that you and your family members wash your hands thoroughly with soap and water right after handling geckos or their habitats.

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Advice for Consumers

- Don't buy small turtles or other reptiles or amphibians for pets or as gifts.
- If your family is expecting a child, remove any reptile or amphibian from the home before the infant arrives.
- Keep reptiles and amphibians out of homes with children younger than 5, the elderly, or people with weakened immune systems.
- Do not allow reptiles or amphibians to roam freely through the house, especially in food preparation areas.
- Do not clean aquariums or other supplies in the kitchen sink. Use bleach to disinfect a tub or other place where reptile or amphibian habitats are cleaned.
- Always wash your hands thoroughly with soap and water after touching any reptile or amphibian, its housing, or anything (for example, food) that comes in contact with the animal or its housing.
- Be aware that *Salmonella* infection can be caused by contact with reptiles or amphibians in petting zoos, parks, child-care facilities, or other locations.
- Watch for symptoms of *Salmonella* infection, such as diarrhea, stomach pain, nausea, vomiting, fever, and headache. Call your doctor immediately if you have any of those symptoms.

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For More Information

- **FDA Acts to Reduce Risk of Salmonella Infections**
(</ForConsumers/ConsumerUpdates/ucm048081.htm>) [ARCHIVED]
- **Pet Turtles: A Source of Germs (brochure) (PDF - 225KB)**
(</downloads/AnimalVeterinary/ResourcesforYou/AnimalHealthLiteracy/UCM117790.pdf>)
- **Reptiles and Salmonella** (<http://www.cdc.gov/Features/ReptilesSalmonella/>)
- **MMWR Weekly: Multistate Outbreak of Human Salmonella Infections Associated with Exposure to Turtles—United States, 2007-2008** (<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5703a3.htm>)
- **MMWR Weekly: Multistate Outbreak of Human Salmonella Typhimurium Infections Associated with Aquatic Frogs—United States, 2009**
(<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5851a1.htm>)

More in Consumer Updates (</ForConsumers/ConsumerUpdates/default.htm>)

Animal & Veterinary (</ForConsumers/ConsumerUpdates/ucm149147.htm>)

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